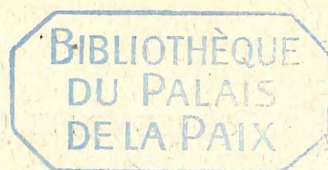


# AIR MINISTRY

## ADVISORY COMMITTEE ON CIVIL AVIATION

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### REPORT

ON

### IMPERIAL AIR ROUTES

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*Presented to Parliament by Command of His Majesty*

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Mr. F. G. L. BERTRAM, O.B.E. (Air Ministry) (*Secretary*).



# ADVISORY COMMITTEE ON CIVIL AVIATION.

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## REPORT ON IMPERIAL AIR ROUTES.

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To

The Right Hon. WINSTON S. CHURCHILL, M.P.,  
SECRETARY OF STATE FOR AIR.

The Committee have given very careful consideration to the question, "How best to organise Imperial Air Routes," which was the question specifically referred to them for consideration and advice when they were appointed. The Committee understand the designation, "Imperial Air Routes" to mean routes which will enable the new transport element, namely, the air, to be made use of in speeding up communication between the various portions of the British Empire. This Report throughout deals only with heavier-than-air machines. The Committee propose to submit a further report dealing with the subject of the possible use of lighter-than-air craft in the development of Imperial Air Routes.

They have considered Canada, Newfoundland, South Africa, India, Australia and New Zealand, as the main outlying portions of the British Empire (and to these they would add Egypt) to which they should direct their attention, and have thought it best to confine themselves to the question of the establishment of main trunk lines connecting these portions of the Empire with the United Kingdom by air. Such trunk lines would no doubt in course of time be supplemented, if not preceded, by local lines connecting up the various Dominions and Colonies internally, and with other Dominions and Colonies, but this portion of the problem is one which the Committee do not conceive themselves to be called upon to deal except on specific reference by the Secretary of State.

They offer the following observations on the problem of main trunk lines. At the outset they wish to make it very clear that they have in their investigation kept always in view the present financial position of the country. That position obviously dictates restriction of proposals to what is necessary to meet the essential needs of the present situation.

Under existing conditions it is not practicable at the moment to recommend any large appropriation of public funds by way of investment in what is now an entirely novel business. The Committee, however, are of opinion that, taking a long view, any investment such as they suggest will at least bring the necessary experience to help to establish flying ultimately on a paying basis.

The Committee realise to the full the unique character of the problem, which is, whether any, and if so what, steps can and should be taken now to develop civil transport over these routes in an element wherein the controlling and limiting factors are as yet very imperfectly understood. There is little guidance to be found in experience, but as compensation there are no precedents or vested interests to hamper an attempt to solve the problem.

The Committee have started from the basis that the problem is one which is capable of solution, that there is a future for the development of the air as a new means of civil transport and communication, in spite of the present handicaps from a technical, operational and financial point of view. They feel it necessary to endeavour to strike a mean between the view of those who, in contemplating the development of air transport, lose sight of the difficulties and dangers which at present beset it, and advocate too ambitious schemes, and those others, who, while freely admitting the progress of aviation on the service side during the war and the great influences which that progress exercised on the position, are yet very doubtful whether the war development went so far as to establish even the practicability in the immediate future of making use of the air element for everyday commercial purposes.

The Committee have been impressed by the unanimity of the opinion of those who have identified themselves with development in civil aviation as to the fact that the problems involved in each section of an Imperial Route vary greatly and thereby render the formulation of a general Government policy exceptionally difficult at present.

The Committee accordingly find themselves without enough data or experience to justify them in recommending any rigid policy involving the immediate planning and initiation of any complete scheme of Imperial routes at present. They have come to the conclusion that in the meantime the correct policy is to initiate immediate action to obtain experience, and that such experience should be obtained on that part of the whole field of Imperial routes which offers the best chance of success, leaving the initiation of action elsewhere for further consideration when fuller experience has been obtained.

They have no hesitation in deciding that the proper place for initial action is the route from this country to India, and ultimately thence to Australia. In the second place stands the route from this country



to South Africa, which on the section from this country to Egypt would be the same as the first route. They consider it would be wise in the first instance to deal with the problem in reference to one section of the route from this country to India, viz., the section between Egypt and Karachi, leaving to the Indian Government the initiation and encouragement of the internal air routes in India. They are convinced that this section is the sphere in which experience can be most readily and usefully obtained, as the conditions of aerial navigation on this section are judged to be more favourable than elsewhere. Assuming that an air route is to be established between these points, the first question which arises is the broad question of principle as to the agency by which that work can best be undertaken.

The point has been made that at this moment the readiest way of testing the air possibilities of the route for civil purposes would simply be to give to the Royal Air Force squadrons stationed on or near the route the task of carrying mails, passengers, etc., in so far as their Service duties allow them to do so, or, in the alternative, to increase the formations for strictly Service purposes by additional formations to meet the civil requirements. The Committee have considered this method, and have decided against it. There are weighty Service objections against the use of the Royal Air Force for civil purposes, under either of the two alternatives above-mentioned, and the Committee cannot avoid the conclusion that under neither alternative would the conditions be such as to enable any real judgment to be formed or experience gained as to the possibilities of civil aviation. They must also give weight to the consideration that private enterprise would be entitled to raise strong objection to State monopoly or direct State competition on what the Committee themselves find to be the best sphere for trying out the possibilities of the new form of transport. There is also the very important consideration that in the view of the Committee the development of aircraft for Civil and Service purposes must before long result in their differentiation into distinct types, and that consequently assistance in the development of commercial aviation cannot be permanently expected from the Service side otherwise than in the spheres referred to below, such as common use of aerodromes, wireless, and meteorological facilities, etc.

Assuming, then, that direct action by the Royal Air Force is set aside, the Committee have had to consider what other arrangements are feasible. They are met at the outset by the difficulty that without State aid in one form or another, they see no prospect, more especially in present financial conditions, of any private enterprise embarking capital in a venture of this description, where, as they have already observed, experience is lacking and many unknown factors will come in. The Committee have accordingly come to the conclusion that State aid in one form or another will be essential. They consider that there is a case for such State aid, holding that the moderate expenditure which in present financial conditions is all that should be contemplated is justified as an investment in an undertaking with very great ultimate possibilities. The Committee have considered three possible methods of organising the undertaking:—

1. Operation by the State itself.
2. The constitution of a Chartered Company combining State and private capital.
3. Private enterprise, State aided.

The Committee are against 1, operation by the State itself. They consider that in a new enterprise of this description, the work of initiation and development is work which the State cannot perform in such a way as to enable the possibilities to be properly tried out.

The Committee have had before them various suggestions for 2, the formation of a Chartered Company combining State and private enterprise. This proposal presents certain attractive features. It is argued that it would enable the organisation to be so formed as to contain representatives of different interests concerned, such as aircraft constructors, shipping companies, and the various departments of State, including the Post Office. It is argued that it would secure a single and uniform development of policy, the co-ordination of all effort, the standardisation of material, the avoidance of any objection on the ground of monopoly, and more or less definite support to the existing aircraft contractors by preferential treatment in the supply of material. The Committee appreciate these arguments, but have come to the conclusion that they cannot recommend this form of organisation for the following reasons:—The enterprise under consideration is of all enterprises one in which it is essential that the direction should be free from stereotyped methods and open to new ideas and suggestions, even those which would normally be regarded as imaginative. The concentration of all British aerial effort into a single organisation would have a narrowing tendency likely to jeopardise success. There is serious risk that a Chartered Company would tend to develop a system of bureaucratic control, open to the same objections as direct control by the State.

The Committee consider that too much weight can easily be attached at the present to the arguments for standardisation.

They have, therefore, come to the conclusion that the third method is the sound one—*i.e.*, the use of private enterprise with some measure of State aid behind it. They would point out that it is in this way that the development of British trade and industry has been attained in the past, and that it best secures the initiative and drive which are vital in the undertaking now under review. At a later stage of the general development it may well be that other methods may be usefully employed, but at this stage the Committee hold that the case is one for the application of the traditional British method of private initiative and private enterprise, with just such assistance from the State as is requisite for the securing of success.

They have considered closely the problem of the form which this State assistance should take. There are certain facilities required for air navigation which are clearly best provided by the State, such as meteorological and wireless information and the like. These the State should in any case provide, but the Committee think that it must go further and undertake the provision of what may be called Air Ports—*i.e.*, the terminal and intermediate aerodromes and emergency landing grounds. The provision of these by private capital would lay an initial burden on the enterprise, which would be likely to be fatal to its inception. Further, if, as the Committee anticipate, the enterprise develops and establishes itself, it is on expenditure on Air Ports that the State might expect to obtain a return in the shape of charges for use.



Moreover, the Committee are of opinion that, when aerial transport over Imperial Air Routes is an assured success, it will be of the greatest importance that the Air Ports should be owned and controlled by the State. The Committee regard this as an important factor in preventing operating firms from building up "good-will" of a serious character against the Government. State ownership will give a very full degree of control by the State over commercial flying, and will prevent the very dangerous possibility of monopolistic control if the aerodromes were privately owned and merged into a trust. The Committee generally attach the utmost importance to the principle of State ownership and control of Air Ports, and they think the matter of sufficient importance to justify it being brought to the notice of all Governments of the Empire.

In the case of the Egypt-India Air Route, the Committee understand that it has been decided for purely Service purposes to establish and maintain aerodromes and landing grounds for the transit of machines to India, and that proposals to this end have been approved by the War Cabinet. Consequent upon this decision, it appears to them that the approval and execution of this scheme, while meeting Service needs, will also be a starting point for the civil development of the air route from Egypt to India; they are advised that the civil air route, at all events at the outset, will best follow the route laid down for Service machines. They strongly urge, therefore, that the Service proposals for joining India and Egypt by air should be put into effect as soon as possible.

They are advised that when this is done it will be possible to pass one civil machine per week each way between Egypt and India. It may well be that, as civil aviation develops, further facilities will be required, which facilities would naturally mean further expenditure on the routes for purely civil purposes. The Committee, while recognising that additional expenditure beyond that incurred on the establishment of this route for Service purposes is inevitable, as the facilities are increased, to meet civil requirements, find it difficult to estimate closely at the moment either the total amount so required or the periods when the additional expenditure will be necessary. But clearly the need for additional expenditure must be taken into account now.

It is then necessary to consider what concrete action should be taken to give private enterprise its opportunity of getting on to the route. The element in which the air has the advantage over other means of transport is speed. The Committee are advised, for example, that the time occupied in transit from Egypt to India by sea, namely, nine days at a moderate computation, could be reduced by not less than three-and-a-half days if the transit were made by air, and in the future might be still further reduced.

Accordingly, it would seem that the first step is to ascertain on what terms arrangements can be made for the carriage of mails by air—the carriage of express goods and of passengers being relied on as ancillary to the carriage of mails. The Committee recommend that the Post Office, in consultation with the Air Ministry, should forthwith draw up a form of tender for an air mail contract between Egypt and Karachi and/or Bombay. It would be put up to limited competition between firms of such standing as to make it reasonably certain that they could perform the services tendered for. This contract should provide for alternative tenders for services of varying frequency per week, and would be fitted in with the standing ocean mail contract. In calling for tenders it would be made clear what facilities the State would provide in the way of meteorological, wireless, and other information, and in the way of aerodromes and landing grounds. At the outset these facilities may have to be restricted to those provided under the purely Service scheme above mentioned, particulars of which, if approved, would be made known to tenderers, and which would cover the transit of one machine per week each way.

Tenderers would be requested to quote for more frequent services on the basis that the State would, in presence of the tenders, consider that further facilities as above could properly be provided.

It appears to the Committee that the above method of procedure is the only way of arriving at a judgment on experience of what the cost and income of an air route on this section is likely to be. In the light of this experience, the whole problem would be further considered, and a more general policy for further development prepared.

The Controller-General of Civil Aviation has, during the course of the meetings, informed the Committee as to what is being done for civil aviation in other countries, and the Committee understand that he is forwarding to the Secretary of State a statement of this information, from which it will be seen that in certain cases subsidies and other forms of assistance are given which are not included in the recommendations of this report. The Committee suggest as a possible additional form of assistance that a certain quantity of the aircraft engines and material which have been declared surplus by the Royal Air Force could be placed at the disposal of the Civil Aviation Department for distribution free in this country and the Colonies.

The Committee understand that in India and Egypt local regulations prevent any pioneer work whatever in civil aviation being carried out. The policy underlying these regulations is not a matter for the Committee. From the point of view of civil aviation, which is their concern, they consider it very desirable that all prohibitory bans on civil aviation, so far as those parts of the British Empire which are under the direct control of the Imperial Government are concerned, should be removed at once, and that representations be made to the Dominions and India in favour of the immediate acceptance of a similar policy.

The conclusions of the Committee may be summed up as follows :—

- (1) That the air route from Egypt to India should be developed.
- (2) That the development should be by private enterprise backed by State assistance, and that the State assistance should take the form of providing meteorological and wireless services and of air ports, including the provision of the sheds required for running purposes.
- (3) That the Service proposals for these air ports should be carried through as soon as possible.
- (4) That the necessity for additional expenditure on the development of these ports for purely civil purposes in order to meet the increase in frequency of the services should not be overlooked, though only experience can show what such expenditure may be



- (5) That the G.P.O., in consultation with the Air Ministry, should draw up a form of tender for an air mail contract between Egypt and India to be put up for competition.
- (6) That a certain quantity of the aircraft engines and material which have been declared surplus by the Royal Air Force could be placed at the disposal of the Civil Aviation Department for distribution free in this country and the Colonies.
- (7) That the prohibitory bans on civil aviation in Egypt and India should be removed.

These modest recommendations are made on the assumption that the State intend to maintain flying supremacy by supporting the Service side at a level that will ensure the safety of the position.

(Signed) WEIR, *Chairman.*

INCHCAPE.

J. STEVENSON.

J. T. C. MOORE-BRABAZON.

CHARLES I. DE ROUGEMONT.

H. WHITE-SMITH.

L. BAIRSTOW.

H. TRENCHARD.

F. H. SYKES.

W. ARTHUR ROBINSON.

F. G. L. BERTRAM, *Secretary.*

30th October, 1919.